

Amendments to the Specification:

Please replace paragraph 0001 with the following amended paragraph:

[0001] This application is a continuation-in-part of U.S. Patent Application No. 09/751,870, filed December 29, 2000, now pending, which claims the benefit of U.S. Provisional Application No. 60/174,429, filed January 4, 2000, whose entire contents are hereby incorporated by reference in its their entirety.

Please replace paragraph 0004 with the following amended paragraph:

[0004] One prior art technique attempts to bypass or replace a recipient company's switchboard operator (or other means of directing incoming calls) with a preprogrammed code attached to the telephone number. Some prior art techniques have attempted to alleviate the problems of dwindling telephone number availability and the proliferation of area codes and also to make it easier to reach recipients by limiting the numbers that must be remembered and dialed. For example, one prior art technique disclosed in U.S. Patent No. 6,076,121 allows callers to dial preprogrammed codes and a telephone number to reach a desired recipient or communications device. Each five-digit destination code (prefix) (see Table 5, col. 13, lines 50-67 and col. 14, lines 50-63 of the reference) would route the call directly to a specific group such as Accounts Payable, Sales, Engineering Director, Laundry Room, etc. Over 1,000 destination codes would be needed to reach the many groups in various organizations. Hence, the reference, at col. 12, lines 45-46, contains the statement "Therefore, there is no inherent limit on the quantity of FP

codes which can be defined in the future.” Each telephone number is assigned at least one functional property code, that when dialed along with the telephone number, directs the call to ~~that telephone number~~ a destination. This allows one telephone number to be used multiple times for many different communications devices. The recipient of a call, however, is responsible for assigning a functional property code to all of their telephone numbers; callers must then remember ~~the~~ hundreds of functional property codes for each telephone number they wish to dial, which can vary widely not only for the telephone numbers of each recipient, but also from recipient to recipient. This technique, therefore, lacks a uniform standard that would make it easy for callers to remember a particular code, and creates the possibility of a caller having to dial a large, multi-digit functional property code before every telephone number. Code dialing could be done indirectly by a device that displays the available groups and allows the caller to select a target group such as “Sales.”

Please add the following new paragraphs after paragraph 0016:

[0016.1] In a preferred embodiment, the invention is a method of processing a call directed to a specific communications device that is connected to a telecommunications system, the method comprising: informing the customers of the telecommunications system that one of a plurality of unique sets of prefix characteristics is normally, but not always, associated with one type of communications device that is connectable to a telecommunications system (e.g., in advertising and/or in a service contract); assigning one of a plurality of unique multi-digit telephone numbers to each selected customer (e.g., subscriber) of the telecommunications system within each area code of each local area and granting said each selected customer having a specific

communications device that is connected to the telecommunications system the exclusive right to optionally use a combination comprising any one of said unique sets of prefix characteristics plus said unique multi-digit telephone number to identify the specific communications device other than a land voice line to the other customers of the telecommunications system; receiving a sequence of signals representing a specific set of prefix characteristics plus a specific unique (e.g., within an area code) multi-digit (e.g., common or multi-functional) telephone number that has been dialed by a caller, the combination of the specific set of prefix characteristics plus said specific multi-digit telephone number identifying the specific communications device that is the destination for said call; and connecting said call to the specific communications device that is the destination for said call without necessarily determining the type of communications device to which the call is directed. For example, in dialing a combination that includes a particular set of prefix characteristics, the particular set of prefix characteristics dialed does not alone indicate to the downstream equipment that the customer desires to send a fax message, i.e., communicate with a fax machine. Preferably, the specific set of prefix characteristics is the # symbol and the # symbol plus said specific multi-digit telephone number identifies a specific fax machine or a specific second voice line with or without an associated facsimile machine. Preferably, the specific set of prefix characteristics is the * symbol and * symbol plus said specific multi-digit telephone number identifies a first specific cellular telephone. Preferably, the specific set of prefix is a digit plus the * symbol and the * symbol plus said specific multi-digit telephone number identifies another specific cellular telephone.

[0016.2] In preferred embodiments of the invention, the following results necessarily follow from practicing the invention: (1) providing about 7.92 million assignable combinations for

landline voice communication devices within each area code, about 7.92 million assignable combinations for facsimile or second land line voice communications devices within each area code, and about 7.92 million assignable combinations for cellular telephone communication devices within each area code; (2) at least about tripling the number of assignable combinations within each area code when compared to the number of assignable numbers available within an area code of a conventional telecommunications system; thereby allowing at least about sixty-six percent fewer area codes to be used to serve local areas when compared to a conventional telecommunications system; and (3) substantially eliminating the practice of requiring customers to dial ten digits to reach a communications device within a specific local area.

[0016.3] In another preferred embodiment, the invention is a method of directing a call to a specific communications device, comprising: announcing to (e.g., informing in some way) the customers of a telecommunications system that one of a plurality of unique symbols is normally (e.g., but not in a mandatory way) associated with a particular type of communications device that is connectable to a telecommunications system; assigning one of a plurality of unique (e.g., within each area code) telephone numbers to each selected customer of the telecommunications system and granting said each selected customer having a specific communications device the exclusive right to optionally use a combination comprising any one of said unique symbols plus said unique (e.g., multi-function or common) telephone number to identify the specific communications device to other customers of the telecommunications system (and/or to other customers of other telecommunications systems); and receiving a call having been initiated by a caller by dialing a combination comprising a specific unique symbol and a specific telephone number; determining the destination indicated by the combination without necessarily

determining the type of communications device (e.g., fax machine versus line telephone versus cellular telephone versus pager) to which the call is directed; and routing the call to the specific communications device represented by the combination. Preferably, the specific unique symbol is the pound key and the pound key plus said specific telephone number identifies a specific fax machine or a specific second voice line with or without an associated fax machine. Preferably, the specific unique symbol is the star key and star key plus said specific telephone number identifies a first specific cellular telephone. Preferably, the specific unique symbol is a digit plus the star key and star key plus said specific telephone number identifies another specific cellular telephone. Preferably, the method further comprises directing the call to a cellular processing network if the specific unique symbol and the specific telephone number indicates that the call is being made to a specific cellular telephone.

[0016.4] In yet another preferred embodiment, the invention is a system for processing a call made to a (e.g., multi-function or common) telephone number and directed to a specific communications device to which that telephone number is assigned (e.g., linked in the minds of customers), the system comprising: means for announcing to the customers of a telecommunications system that one of a plurality of suggested sets of prefix characteristics is normally associated with a single type of communications device that is connectable to a telecommunications system; means for assigning one of a plurality of common telephone numbers to each selected customer of the telecommunications system and granting said each selected customer having a specific communications device the exclusive right to optionally use a combination comprising any one of said suggested sets of prefix characteristics plus said common telephone number (e.g., linked to the selected customer in the minds of other

customers) to identify the specific communications device to other customers of the telecommunications system; a sequence of signals representing a specific set of prefix characteristics and a specific common telephone number that have been dialed by a caller, the sequence of signals being a directory number for the specific communications device (which directory number may or may not be listed), the set of prefix characteristics immediately preceding the common telephone number, being distinguishable from said common telephone number and together with said common telephone number defining a destination for said call, each common telephone number having at least one destination; and a routing apparatus having a switching component and an identification component for determining the intended destination of the call without determining the type of communications device to which the call is directed and connecting the call to that destination.

[0016.5] In another preferred embodiment, the invention is a routing system for directing calls to different communications devices having identical telephone numbers, said system comprising: an administrative subsystem comprising means for informing the customers of a telecommunications system that one of a plurality of suggested symbols is normally (but not always) associated with each type of communications device that is connectable to a telecommunications system and means for assigning one of a plurality of unique telephone numbers (e.g., within an area code) to each selected customer of the telecommunications system and granting said each selected customer having a specific communications device the exclusive right to optionally use a combination comprising any one of said plurality of suggested symbols plus said unique telephone number to identify the specific communications device (e.g., of any available type) to other customers of the telecommunications system; a network subsystem

having routing apparatus including a switching component and an identification component for processing a call to a destination, the call including a sequence of signals indicating a set of prefix characteristics and a telephone number that have been dialed by a caller, the destination being identified by the set of prefix characteristics, the sequence of signals being a directory number for the specific communications device; and at least one communications device assigned to a telephone number; wherein said the set of prefix characters does not necessarily indicate to said routing apparatus that the specific communications device is a particular type of communications device.

[0016.6] In a further preferred embodiment, in a telecommunications system in which at least some subscribers control a plurality of communications devices, a system for routing a telephone call to a specific communications device of a particular subscriber, the invention is a system comprising: means for accepting a combination comprising a code and a common telephone number (e.g., one linked in the mind of callers and/or in a directory with a particular subscriber) as an indication that a caller desires to reach the specific communications device of the particular subscriber (e.g., a line telephone, a cellular telephone, a facsimile machine, or a pager), said specific communications device of the particular subscriber being reachable by the caller's dialing no other telephone number (e.g., each specific communications device is associated with only one directory number); and means for routing said telephone call to the specific communications device of the particular subscriber; wherein said code does not necessarily indicate to said means for routing that the specific communications device of the particular subscriber is a particular type of communications device. For example, in a preferred embodiment, using a # symbol as a code does not indicate to the means for routing that the caller

desires to send a fax message. This is conventionally done by the calling tone, a one-second burst of 1100 Hertz occurring every three seconds, that is produced by the caller's fax machine. Preferably, the means for accepting is selected from the group consisting of: a line telephone, a cellular or wireless telephone, a facsimile machine, and a pager. Preferably, said code is selected from the group consisting of: a prefix that precedes an area code, a prefix that follows an area code, a suffix that precedes an area code, and a suffix that follows an area code. Preferably, said code is the # symbol and the # symbol plus said common telephone number identifies a specific fax machine or a specific second voice line with or without an associated facsimile machine. Preferably, said code is the * symbol and * symbol plus said common telephone number identifies a first specific cellular telephone. Preferably, said code is a digit plus the * symbol and the digit plus the * symbol plus said common telephone number identifies another specific cellular telephone. Preferably, said code is a digit plus the # symbol and the digit plus the # symbol plus said common telephone number identifies another specific voice land line with or without an associated facsimile machine.

Please replace paragraph 0020 with the following amended paragraph:

[0020] FIG. 1 is a block diagram flowchart of the overall operation of a system implementing a preferred embodiment of the present invention. In block 10, a call is placed, such as for example from a wireless or cellular phone, facsimile machine or line phone. In a preferred embodiment of the present invention, the call ~~will be~~ is placed by dialing a set of prefix characteristics plus the intended a telephone number. The telephone number is preferably preceded (but may be

followed) by a the set of prefix characteristics that together indicate a destination for each call.

Each destination is a specific, intended communications device. A specific communications device may be a cellular or wireless telephone, a line telephone, a facsimile machine, a pager, or any other device now known or developed in the future which may be capable of receiving a call over a public telephone network. This specification intends that the terms wireless and cellular can be used interchangeably to refer to any telephone which communicates by transmitting and receiving signal using radio waves ~~and~~ or other wireless forms of communication.

Please replace paragraph 0022 with the following amended paragraph:

[0022] Telephone keypads may also be modified to allow ~~different~~ additional symbols to appear on the keypad. Each touch-tone digit is a unique combination of two single-frequency tones. The frequencies are arranged in a matrix. As the button is pushed for a specific digit, the appropriate combination of two tones is generated, corresponding to the intersection of the vertical and horizontal axes. The frequencies corresponding to the horizontal axis are called low band and are 697 Hz, 770 Hz, 852 Hz, and 941 Hz. The frequencies corresponding to the vertical axis are called high band and are 1209 Hz, 1336 Hz, 1477 Hz, and 1633 Hz. When a button is pushed, two tones at the frequencies corresponding to the intersection of the vertical and horizontal axes are produced. A central processing network or mobile switching center senses the frequencies of the tones and determines the dialed digit. For example, if the digit 8 were pushed, two frequencies would be generated simultaneously and filtered and detected to determine the dialed digit.

Please replace paragraph 0028 with the following amended paragraph:

[0028] Calls passing through the wireless network that are determined to be long distance, i.e., to an area code outside of the regional location of the caller, are routed to a central processing network in block 14 and then to a central processing network in the geographical area where the destination of call is ~~intended to go to~~ located, as shown in block 16. Here, a signal processor and central processing unit determine whether the call is intended for a specific wireless phone, or another ~~type of device~~ destination. If the call is intended for a wireless phone, the call is then routed to the wireless network in the same geographical area, the wireless network including the base station and the mobile switching center. This is shown in block 24. At this point, because of the prefix characteristic dialed preceding the telephone number, it has been determined that the intended communications device is a particular wireless telephone. Accordingly, the call is then routed to the appropriate wireless phone. This is shown in block 30. If the call is intended for a line phone, the call is routed to the specific communications device as shown in block 28.

Please replace paragraph 0034 with the following amended paragraph:

[0034] If the call is intended for another ~~type of~~ specific communications device, such as a line telephone 16, or for a wireless phone in a different regional location, the MSC 14 routes the call to a Public Switched Telephone Network (PSTN) 18 in the call area in which the original call is made. The PSTN 18 ~~process~~ processes the call and determines whether it is intended for a locally-based device or a device in another geographical location. If intended for a locally-based device, it is either routed to the appropriate device in the case of non-wireless calls, or to an

additional mobile switching center (MSC) 20 for processing if the call is intended for a wireless telephone 24. If the call is intended for a device, wireless or otherwise, in another geographic location, the call is routed to an additional PSTN 22. The additional PSTN 22 repeats the previous process, routing the call to a locally-based device, an MSC 20, or another PSTN 22 until the call reaches its intended destination.

Please replace paragraph 0048 with the following amended paragraph:

[0048] After a call having a set of prefix characteristics and a telephone number is processed by the central processing unit 48 and the signal processor 46, the call is sent through the central processing unit output port to a switching processor 50 and then to the switching matrix 52 after the call's destination is determined. The switching matrix 52 then routes the call to the particular component of the PSTN 18 that will transmit the call to the intended ~~location~~ destination. For example, if the set of prefix characteristics plus the telephone number indicates that the call is intended for a local line telephone, the switching matrix 52 routes the call through a line connection to the intended device. If the set of prefix characteristics plus the telephone number indicates that the call is intended for a local wireless phone, the switching matrix 52 routes the call to an MSC in the local area, which in turn identifies the intended ~~unit~~ destination and routes the call appropriately. If the set of prefix characteristics plus the telephone number indicates that another ~~type of~~ specific communications device is intended, such as a pager, the switching matrix 52 also routes the call accordingly. Furthermore, if the set of prefix characteristics plus the telephone number indicates that the call is intended for a specific communications device, wireless or otherwise, in another geographic location, the switching matrix 52 routes the call to

another PSTN 22, where a signal processor having a central processing unit identifies the communications device intended using the set of prefix characteristics plus the telephone number and instructs the switching matrix 52 to route the call accordingly. (Note: The above discussion is written from the user's viewpoint. In preferred embodiments of the invention, the set of prefix characteristics is actually part of the assignable telephone number. The term "plus the telephone number" refers only to that portion of the assignable telephone number containing seven numerical digits.)